

Title (en)
BEAMFORMING METHOD AND DEVICE FOR MASSIVE MIMO SYSTEM

Title (de)
STRAHLFORMUNGSVERFAHREN UND -VORRICHTUNG FÜR EIN MASSIVES MIMO-SYSTEM

Title (fr)
PROCÉDÉ ET DISPOSITIF DE FORMATION DE FAISCEAU DESTINÉS À UN SYSTÈME MIMO MASSIF

Publication
EP 3562050 A2 20191030 (EN)

Application
EP 17844623 A 20171218

Priority
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• IB 2017001714 W 20171218

Abstract (en)
An object of the present disclosure is to provide a beamforming method for a massive MIMO system. Specifically, S routes of data streams to be transmitted via the antenna array are subjected to horizontal direction baseband beamforming processing, to obtain T routes of data streams; the T routes of data streams are subjected to vertical direction digital beamforming processing to map the T routes of data streams onto a corresponding channel according to a predetermined rule; a data stream on each channel is subjected to analog beamforming processing to map the data stream on each channel onto a corresponding array element of the antenna array for transmission. Compared with the prior art, the present disclosure implements the following advantages: by combining the advantages of RF beamforming with the BB beamforming with limited antennas at the FH, a good flexibility regarding BB algorithm selection and RF beam design is provided, which balances the complexity and performance between BB and RF and implements a massive MIMO in sub-6GHz.

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EP 17844623 A 20171218; CN 201611194059 A 20161221; IB 2017001714 W 20171218; US 201716471457 A 20171218